

Port of *Hull*Received at London Office **FRI. 10 JAN 1908**No. in Survey held at *Goolle & Hull*Date, first Survey *June 5<sup>th</sup>*Last Survey *31<sup>st</sup> Dec* 1907

Reg. Book.

30 *Supp.* on the*Steel S. K. "Puffin"*(Number of Visits *42*)

Master

Built at *Goolle*By whom built *Goolle S. & R. Co. Ltd.*Tons *Gross 199**Net 63*When built *1904*

Engines made at

By whom made

*Messrs*when made *1907*

Boilers made at

*Hull*

By whom made

*Earle's Co. Ltd.*when made *1907*

Registered Horse Power

Owners *Helsall Bros & Buching Ltd.*Port belonging to *Hull*Nom. Horse Power as per Section 28 *55*Is Refrigerating Machinery fitted for cargo purposes *No*Is Electric Light fitted *No*

## ENGINES, &amp;c.—Description of Engines

*Triple Expansion*No. of Cylinders *3*No. of Cranks *3*Dia. of Cylinders *12" - 21" - 33"*Length of Stroke *21"*Revs. per minute *105*

Dia. of Screw shaft

as per rule *6.7*as fitted *7 3/4*Material of *Steel*

screw shaft

Is the screw shaft fitted with a continuous liner the whole length of the stern tube *No*

Is the after end of the liner made water tight

in the propeller boss *Yes* If the liner is in more than one length are the joints burned *2 separate liners*

If the liner does not fit tightly at the part

between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive *✓*

If two

liners are fitted, is the shaft lapped or protected between the liners *No*Length of stern bush *35 1/2"*

Dia. of Tunnel shaft

as per rule *5.74*

Dia. of Crank shaft journals

as per rule *6.2*Dia. of Crank pin *6 1/2"*Size of Crank webs *12 1/4" x 4 1/2"*

Dia. of thrust shaft under

collars *6 1/2"*Dia. of screw *8-9"*Pitch of Screw *9-10" to 10-6"*No. of Blades *4*State whether moveable *No*Total surface *26 sq*No. of Feed pumps *1*Diameter of ditto *2 1/2"*Stroke *10"*Can one be overhauled while the other is at work *—*No. of Bilge pumps *1*Diameter of ditto *2 1/2"*Stroke *10"*Can one be overhauled while the other is at work *—*No. of Donkey Engines *One*Sizes of Pumps *4 1/2" x 2 3/4" x 4"*

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room *One 2" One 2 1/2"*In Holds, &c. *One 2" to hold, Two 2" to tank,**and ejector suction from all parts of ship.*No. of Bilge Injections *1* sizes *3 1/2"*Connected to condenser, or to circulating pump *pump*Is a separate Donkey Suction fitted in Engine room & size *Yes 2 1/2"*Are all the bilge suction pipes fitted with roses *Yes*Are the roses in Engine room always accessible *Yes*Are the sluices on Engine room bulkheads always accessible *0*Are all connections with the sea direct on the skin of the ship *Yes*Are they Valves or Cocks *both*Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates *Yes*Are the Discharge Pipes above or below the deep water line *above*Are they each fitted with a Discharge Valve always accessible on the plating of the vessel *Yes*Are the Blow Off Cocks fitted with a spigot and brass covering plate *Yes*What pipes are carried through the bunkers *hold suction*How are they protected *wood casing*Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times *Yes*Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges *Yes*Dates of examination of completion of fitting of Sea Connections *10.12.07*of Stern Tube *10.12.07*Screw shaft and Propeller *10.12.07*Is the Screw Shaft Tunnel watertight *None*Is it fitted with a watertight door *✓*worked from *✓*BOILERS, &c.—(Letter for record *8*)Manufacturers of Steel *Messrs Beames & Sons*Total Heating Surface of Boilers *900 sq*Is Forced Draft fitted *No*No. and Description of Boilers *One Cyl. Multitubular*Working Pressure *160 lbs*Tested by hydraulic pressure to *320 lbs*Date of test *18.10.07*No. of Certificate *1602*

Can each boiler be worked separately

Area of fire grate in each boiler *24 1/2 sq*

No. and Description of Safety Valves to

each boiler *Two Spring*Area of each valve *3.14 sq*Pressure to which they are adjusted *162 lbs*Are they fitted with easing gear *Yes*Smallest distance between boilers or uptakes and bunkers or woodwork *11"*Mean dia. of boilers *10-6"*Length *9-6"*Material of shell plates *Steel*Thickness *37/32"*Range of tensile strength *28-32*Are the shell plates welded or flanged *No*Descrip. of riveting: cir. seams *L.D.*long. seams *O.B.S.D.R.*Diameter of rivet holes in long. seams *1 1/8"*Pitch of rivets *5 3/8"*Lap of plates or width of butt straps *11 1/2"*

Per centages of strength of longitudinal joint

rivets *86.7*plate *80.2*Working pressure of shell by rules *161 lbs*Size of manhole in shell *12" x 16"*Size of compensating ring *30" x 28" x 27/32"*No. and Description of Furnaces in each boiler *Two Plain*Material *Steel*Outside diameter *2'-10"*

Length of plain part

top *6-4 1/2"*

Thickness of plates

crown *31/32"*Description of longitudinal joint *Welded*No. of strengthening rings *0*Working pressure of furnace by the rules *176 lbs*Combustion chamber plates: Material *Steel*Thickness: Sides *5/8"*Back *3/32"*Top *5/8"*Bottom *5/8"*Pitch of stays to ditto: Sides *8 1/2" x 8 1/2"*Back *10" x 9"*Top *8 1/2" x 7 1/2"*If stays are fitted with nuts or riveted heads *Nuts*Working pressure by rules *164 lbs*Material of stays *Steel*Diameter at smallest part *1 1/2"*Area supported by each stay *72.25 sq*Working pressure by rules *195 lbs*

End plates in steam space:

Material *Steel*Thickness *7/8"*Pitch of stays *15" x 15"*How are stays secured *O.N.*Working pressure by rules *161 lbs*Material of stays *Steel*Diameter at smallest part *2 5/16"*Area supported by each stay *225 sq*Working pressure by rules *195 lbs*Material of Front plates at bottom *Steel*Thickness *7/8"*Material of Lower back plate *Steel*Thickness *7/8"*Greatest pitch of stays *14" x 9"*Working pressure of plate by rules *191 lbs*Diameter of tubes *3"*Pitch of tubes *4 5/8" x 4 3/8"*Material of tube plates *Steel*Thickness: Front *7/8"*Back *13/16"*Mean pitch of stays *9"*Pitch across wide water spaces *14"*Working pressures by rules *160 lbs*Girders to Chamber tops: Material *Steel*

Depth and

thickness of girder at centre *7 1/2" x 1 1/2"*Length as per rule *2'-2"*Distance apart *7 1/2"*Number and pitch of stays in each *Two 8 1/2"*Working pressure by rules *246 lbs*

Superheater or Steam chest; how connected to boiler

Can the superheater be shut off and the boiler worked

separately

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

holes

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

If stiffened with rings

Distance between rings

Working pressure by rules

End plates: Thickness

How stayed

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

Foundation

W1563-0144



# VERTICAL DONKEY BOILER—

Manufacturers of Steel

No.	Description	Made at	By whom made	When made	Where fixed
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area	Description of Safety
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Date of adjustment	
If fitted with easing gear	If steam from main boilers can enter the donkey boiler	Dia. of donkey boiler	Length		
Material of shell plates	Thickness	Range of tensile strength	Descrip. of riveting long. seams		
Dia. of rivet holes	Whether punched or drilled	Pitch of rivets	Lap of plating	Per centage of strength of joint	Rivets Plates
Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	No. of stays to do.	Dia. of stays	
Diameter of furnace Top	Bottom	Length of furnace	Thickness of furnace plates	Description of joint	
Working pressure of furnace by rules	Thickness of furnace crown plates	Stayed by			
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey		

SPARE GEAR. State the articles supplied:— Two each top and bottom and connecting rod bolts and nuts, two main bearing bolts and nuts, one set coupling bolts and nuts, one set each, air, circulating, feed and bilge pump valves, and a quantity of assorted bolts nuts etc.

The foregoing is a correct description,

F. J. Palethorpe Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1907 - June 5. 12. 17. 19. 22. 26. 29. July 4. 8. 17. 23. 30. Aug 20. 23. 30. Sep 4. 9. 12. 19. 24. }  
 { During erection on board vessel - - Sep 27. Oct 10. 18. 28. Nov 1. 8. 18. 21. 22. 26. 27. Dec 4. 5. 9. 10. 13. 14. 18. 19. 21. 31 }  
 Total No. of visits 42.

Is the approved plan of main boiler forwarded herewith *sent on with hull* *19510*

Dates of Examination of principal parts—Cylinders 27. 11. 07 Slides 26. 11. 07 Covers 12. 9. 07 Pistons 12. 9. 07 Rods 19. 9. 07  
 Connecting rods 19. 9. 07 Crank shaft 18. 10. 07 Thrust shaft 28. 10. 07 Tunnel shafts Screw shaft 19. 10. 07 Propeller 28. 10. 07  
 Stern tube 28. 10. 07 Steam pipes tested 13. 12. 07 Engine and boiler seatings 10. 12. 07 Engines holding down bolts 14. 12. 07  
 Completion of pumping arrangements 31. 12. 07 Boilers fixed 14. 12. 07 Engines tried under steam 13. 12. 07  
 Main boiler safety valves adjusted 31. 12. 07 Thickness of adjusting washers 3/32 and 9/16  
 Material of Crank shaft Steel Identification Mark on Do. 1938 ATG Material of Thrust shaft 106 GAH Identification Mark on Do. 106 GAH  
 Material of Tunnel shafts — Identification Marks on Do. — Material of Screw shafts Steel Identification Marks on Do. 106 GAH  
 Material of Steam Pipes Solid drawn Copper Test pressure 400 lbs per sq inch

General Remarks (State quality of workmanship, opinions as to class, &c. The engines and boiler of this vessel have been built under special survey in accordance with the Rules, the materials and workmanship are good, the boiler tested by hydraulic pressure and with the engines placed on board and tested under steam, they are now in good order and safe working condition, and respectfully submitted as being eligible in my opinion to be classed with the notation of *L.M.B. 12. 07* in the Register Book.

These engines and boiler are similar to those fitted on the *Se K. Tern* Hull Report No 19510

It is submitted that this vessel is eligible for THE RECORD *L.M.B. 12. 07.*

The amount of Entry Fee. £ 1 : : : When applied for.  
 Special . . . . £ 8 : 5 : : 9/11/1908  
 Donkey Boiler Fee . . . . £ : : : : When received.  
 Travelling Expenses (if any) £ : : 12 : 8 1873/108

Committee's Minute

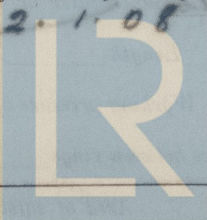
Assigned

TUES. 14 JAN 1908

+ L.M.B. 12. 07

MACHINERY CERTIFICATE WRITTEN.

James Barclay. Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



Lloyd's Register Foundation